



**Basic Patent (Number,Kind,Date):** EP 723072 A1 19960724

**Patent Family:**

Patent Number	Kind	Date	Application Number	Kind	Date
<u>EP 723072</u>	A1	19960724	EP 96100543	A	19960116 (Basic)
<u>EP 844378</u>	A2	19980527	EP 98100995	A	19960116
<u>EP 1050673</u>	A2	20001108	EP 2000116245	A	19960116
<u>EP 1050674</u>	A2	20001108	EP 2000116246	A	19960116
<u>EP 844378</u>	A3	19990901	EP 98100995	A	19960116
<u>EP 1050673</u>	A3	20001115	EP 2000116245	A	19960116
<u>EP 1050674</u>	A3	20001115	EP 2000116246	A	19960116
<u>JP 8254129</u>	A2	19961001	JP 964529	A	19960116
<u>US 5868114</u>	A	19990209	US 969708	A	19971124

**Priority Data:**

Patent Number	Kind	Date
JP 954673	A	19950117
JP 956189	A	19950119
EP 96100543	A3	19960116
JP 964529	A	19960116
US 969708	A	19971124
US 583794	B1	19960116

**PATENT FAMILY:**

**European Patent Office (EP)**

Patent (Number,Kind,Date): EP 723072 A1 19960724

AIR FLOW RATE CONTROL APPARATUS (English; French; German)

Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI SADAYUKI (JP); NAGAYAMA KAZUO (JP)

Priority (Number,Kind,Date): JP 954673 A 19950117; JP 956189 A 19950119

Applic (Number,Kind,Date): EP 96100543 A 19960116

Designated States: (National) DE; FR; GB; IT

IPC: \* F02D-011/10

Derwent WPI Acc No: \* G 96-335519; G 98-274236; G 96-335519

Language of Document: English  
Patent (Number,Kind,Date): EP 844378 A2 19980527  
AIR FLOW RATE CONTROL APPARATUS (English; French; German)  
Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI  
SADAYUKI (JP); NAGAYAMA KAZUO (JP)  
Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A  
19950119  
Applic (Number,Kind,Date): EP 98100995 A 19960116  
Designated States: (National) DE; FR; GB; IT  
IPC: \* F02D-011/10  
Derwent WPI Acc No: \* G 96-335519; G 98-274236; G 98-274236  
Language of Document: English  
Patent (Number,Kind,Date): EP 1050673 A2 20001108  
AIR FLOW RATE CONTROL APPARATUS (English; French; German)  
Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI  
SADAYUKI (JP); NAGAYAMA KAZUO (JP)  
Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A  
19950119  
Applic (Number,Kind,Date): EP 2000116245 A 19960116  
Designated States: (National) DE; FR; GB; IT  
IPC: \* F02D-011/00; F02D-009/08  
Derwent WPI Acc No: ; G 2001-051771  
Language of Document: English  
Patent (Number,Kind,Date): EP 1050674 A2 20001108  
AIR FLOW RATE CONTROL APPARATUS (English; French; German)  
Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI  
SADAYUKI (JP); NAGAYAMA KAZUO (JP)  
Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A  
19950119  
Applic (Number,Kind,Date): EP 2000116246 A 19960116  
Designated States: (National) DE; FR; GB; IT  
IPC: \* F02D-011/00; F02D-009/08  
Derwent WPI Acc No: ; G 2001-051772  
Language of Document: English  
Patent (Number,Kind,Date): EP 844378 A3 19990901  
AIR FLOW RATE CONTROL APPARATUS (English; French; German)  
Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)  
Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI  
SADAYUKI (JP); NAGAYAMA KAZUO (JP)  
Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A  
19950119  
Applic (Number,Kind,Date): EP 98100995 A 19960116  
Designated States: (National) DE; FR; GB; IT  
IPC: \* F02D-011/10  
Derwent WPI Acc No: \* G 96-335519; G 98-274236  
Language of Document: English  
Patent (Number,Kind,Date): EP 1050673 A3 20001115

**AIR FLOW RATE CONTROL APPARATUS (English; French; German)**

Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI SADAYUKI (JP); NAGAYAMA KAZUO (JP)

Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A 19950119

Applic (Number,Kind,Date): EP 2000116245 A 19960116

Designated States: (National) DE; FR; GB; IT

IPC: \* F02D-011/10

Derwent WPI Acc No: \* G 96-335519; G 98-274236

Language of Document: English

Patent (Number,Kind,Date): EP 1050674 A3 20001115

**AIR FLOW RATE CONTROL APPARATUS (English; French; German)**

Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI SADAYUKI (JP); NAGAYAMA KAZUO (JP)

Priority (Number,Kind,Date): EP 96100543 A3 19960116; JP 954673 A 19950117; JP 956189 A 19950119

Applic (Number,Kind,Date): EP 2000116246 A 19960116

Designated States:(National) DE; FR; GB; IT

IPC: \* F02D-011/10

Derwent WPI Acc No: \* G 96-335519; G 98-274236

Language of Document: English

**European Patent Office (EP) - Legal Status**

Number	Type	Date	Code	Text
EP 723072	P	19950117	EP AA	PRIORITY (PATENT APPLICATION) (PRIORITAET (PATENTANMELDUNG)) JP 954673 A 19950117
EP 723072	P	19950119	EP AA	PRIORITY (PATENT APPLICATION) (PRIORITAET (PATENTANMELDUNG)) JP956189 A 19950119
EP 723072	P	19960116	EP AE	EP-APPLICATION (EUROPAEISCHE ANMELDUNG) EP 96100543 A 19960116
EP 723072	P	19960724	EP AK	DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT: (IN EINER ANMELDUNG BENANNT VERTRAGSSTAATEN) DE FR GB IT
EP 723072	P	19960724	EP A1	PUBLICATION OF APPLICATION (VEROEFFENTLICHUNG DER ANMELDUNG MIT

			WITH SEARCH REPORT	RECHERCHENBERICHT)
EP 723072	P	19960724 EP 17P	REQUEST FOR EXAMINATION FILED  960116	(PRUEFUNGSANTRAG GESTELLT)
EP 723072	P	19970917 EP 17Q	FIRST EXAMINATION REPORT  970801	(ERSTER PRUEFUNGSBESCHEID)
EP 723072	P	19980527 EP AH	DIVISIONAL APPLICATION (ART. 76) IN:  EP 844378 P	(TEILANMELDUNG (ART. 76) IN:)
EP 723072	P	20000927 EP RAHF	DIVISIONAL APPLICATION (ART 76) IN: (CORRECTION)  844378  EP 98100995 A 19980121	(TEILANMELDUNG (ART. 76) IN: (KORR.))
EP 723072	P	20000927 EP RAHF	DIVISIONAL APPLICATION (ART 76) IN: (CORRECTION)  EP 2000116245 A 20000808	(TEILANMELDUNG (ART. 76) IN: (KORR.))
EP 723072	P	20000927 EP RAHF	DIVISIONAL APPLICATION (ART 76) IN: (CORRECTION)  EP 2000116246 A 20000808	(TEILANMELDUNG (ART. 76) IN: (KORR.))
EP 723072	P	20001108 EP AH	DIVISIONAL APPLICATION (ART. 76) IN:  EP 1050673 P	(TEILANMELDUNG (ART. 76) IN:)
EP 723072	P	20001108 EP AH	DIVISIONAL APPLICATION (ART. 76) IN:  EP 1050674 P	(TEILANMELDUNG (ART. 76) IN:)
EP 844378	P	19950117 EP AA	PRIORITY (PATENT APPLICATION)	(PRIORITAET (PATENTANMELDUNG))

			JP 954673 A 19950117	
EP 844378	P	19950119 EP AA	PRIORITY (PATENT APPLICATION)	(PRIORITAET (PATENTANMELDUNG))
			JP 956189 A 19950119	
EP 844378	P	19960116 EP AA	DIVIDED OUT OF	(AUSSCHIEDUNG AUS)
			EP 96100543 A3 19960116	
EP 844378	P	19960116 EP AE	EP-APPLICATION	(EUROPAEISCHE ANMELDUNG)
			EP 98100995 A 19960116	
EP 844378	P	19980527 EP AC	DIVISIONAL APPLICATION (ART. 76) OF:	(TEILANMELDUNG (ART. 76) AUS:)
			EP 723072 P	
EP 844378	P	19980527 EP AK	DESIGNATED CONTRACTING STATES IN AN APPLICATION WITHOUT SEARCH REPORT:	(IN EINER ANMELDUNG OHNE RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)
			DE FR GB IT	
EP 844378	P	19980527 EP A2	PUBLICATION OF APPLICATION WITHOUT SEARCH REPORT	(VEROEFFENTLICHUNG DER ANMELDUNG OHNE RECHERCHENBERICHT)
EP 844378	P	19980527 EP 17P	REQUEST FOR EXAMINATION FILED	(PRUEFUNGSANTRAGGESTELLT)
			980121	
EP 844378	P	19990901 EP AK	DESIGNATED CONTRACTING STATES IN A SEARCH REPORT:	(IN EINEM RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)
			DE FR GB IT	
EP 844378	P	19990901 EP A3	SEPARATE PUBLICATION OF THE SEARCH REPORT (ART. 93)	(GESONDERTE VEROEFFENTLICHUNG DES RECHERCHENBERICHTS (ART. 93))
EP 844378	P	20010117 EP 17Q	FIRST EXAMINATION	(ERSTER PRUEFUNGSBESCHIED)

## REPORT

20001130

EP 1050673	P	19950117 EP AA	PRIORITY (PATENT APPLICATION) JP 954673 A 19950117	(PRIORITAET (PATENTANMELDUNG))
EP 1050673	P	19950119 EP AA	PRIORITY (PATENT APPLICATION) JP 956189 A 19950119	(PRIORITAET (PATENTANMELDUNG))
EP 1050673	P	19960116 EP AA	DIVIDED OUT OF EP 96100543 A3 19960116	(AUSSCHIEDUNG AUS)
EP 1050673	P	19960116 EP AE	EP-APPLICATION EP 2000116245 A 19960116	(EUROPAEISCHE ANMELDUNG)
EP 1050673	P	20001108 EP AC	DIVISIONAL APPLICATION (ART. 76) OF: EP 723072 P	(TEILANMELDUNG (ART. 76) AUS:)
EP 1050673	P	20001108 EP AK	DESIGNATED CONTRACTING STATES IN AN APPLICATION WITHOUT SEARCH REPORT: DE FR GB IT	(IN EINER ANMELDUNG OHNE RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)
EP 1050673	P	20001108 EP A2	PUBLICATION OF APPLICATION WITHOUT SEARCH REPORT	(VEROEFFENTLICHUNG DERANMELDUNG OHNE RECHERCHENBERICHT)
EP 1050673	P	20001108 EP 17P	REQUEST FOR EXAMINATION FILED 20000808	(PRUEFUNGSANTRAG GESTELLT)
EP 1050673	P	20001115 EP AK	DESIGNATED CONTRACTING STATES IN A SEARCH REPORT: DE FR GB IT	(IN EINEM RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)
EP	P	20001115 EP A3	SEPARATE	(GESONDERTE

1050673				PUBLICATION OF THE SEARCH REPORT (ART. 93)	VEROEFFENTLICHUNG DES RECHERCHENBERICHTS (ART. 93))
EP 1050673	P	20001115	EP RIC1	CLASSIFICATION (CORRECTION)  7F 02D 11/10 A	(KLASSIFIKATION (KORR.))
EP 1050673	P	20010221	EP RIN1	INVENTOR (CORRECTION)  KAMIMURA, YASUHIRO ; SASAKI, YASUSHI ; AOKI, SADAYUKI ; NAGAYAMA, KAZUO	(ERFINDER (KORR.))
EP 1050674	P	19950117	EP AA	PRIORITY (PATENT APPLICATION)  JP 954673 A 19950117	(PRIORITAET (PATENTANMELDUNG))
EP 1050674	P	19950119	EP AA	PRIORITY (PATENT APPLICATION)  JP 956189 A 19950119	(PRIORITAET (PATENTANMELDUNG))
EP 1050674	P	19960116	EP AA	DIVIDED OUT OF  EP 96100543 A3 19960116	(AUSSCHIEDUNG AUS)
EP 1050674	P	19960116	EP AE	EP-APPLICATION  EP 2000116246 A 19960116	(EUROPAEISCHE ANMELDUNG)
EP 1050674	P	20001108	EP AC	DIVISIONAL APPLICATION (ART. 76) OF:  EP 723072 P	(TEILANMELDUNG (ART. 76) AUS:)
EP 1050674	P	20001108	EP AK	DESIGNATED CONTRACTING STATES IN AN APPLICATION WITHOUT SEARCH REPORT:  DE FR GB IT	(IN EINER ANMELDUNG OHNE RECHERCHENBERICHT BENANNT VERTRAGSSTAATEN)
EP 1050674	P	20001108	EP A2	PUBLICATION OF APPLICATION WITHOUT SEARCH	(VEROEFFENTLICHUNG DER ANMELDUNG OHNE RECHERCHENBERICHT)

## REPORT

EP 1050674	P	20001108 EP 17P	REQUEST FOR EXAMINATION FILED  20000808	(PRUEFUNGSANTRAG GESTELLT)
EP 1050674	P	20001115 EP AK	DESIGNATED CONTRACTING STATES IN A SEARCH REPORT:  DE FR GB IT	(IN EINEM RECHERCHENBERICHT BENANNTE VERTRAGSSTAATEN)
EP 1050674	P	20001115 EP A3	SEPARATE PUBLICATION OF THE SEARCH REPORT (ART. 93)	(GESONDERTE VEROEFFENTLICHUNG DES RECHERCHENBERICHTS (ART. 93))
EP 1050674	P	20001115 EP RIC1	CLASSIFICATION (CORRECTION)  7F 02D 11/10 A	(KLASSIFIKATION (KORR.))
EP 1050674	P	20010228 EP RIN1	INVENTOR (CORRECTION)  KAMIMURA, YASUHIRO ; SASAKI, YASUSHI ; AOKI, SADAYUKI ; NAGAYAMA, KAZUO	(ERFINDER (KORR.))

**Japan (JP)**

Patent (Number,Kind,Date): JP 8254129 A2 19961001

THROTTLE VALVE CONTROLLER OF INTERNAL COMBUSTION ENGINE (English)

Patent Assignee: HITACHI LTD; HITACHI KAA ENG KK

Author (Inventor): KAMIMURA YASUHIRO; SASAKI YASUSHI; AOKI SADAYUKI;  
NAGAYAMA KAZUO

Priority (Number,Kind,Date): JP 964529 A 19960116; JP 954673 A 19950117; JP 956189 A 19950119

Applic (Number,Kind,Date): JP 964529 A 19960116

IPC: \* F02D-009/02; F02D-009/00; F02D-035/00

Derwent WPI Acc No: \* G 96-335519

Language of Document: Japanese

**United States of America (US)**

Patent (Number,Kind,Date): US 5868114 A 19990209

AIR FLOW RATE CONTROL APPARATUS (English)

Patent Assignee: HITACHI LTD (JP); HITACHI CAR ENG CO LTD (JP)

Author (Inventor): KAMIMURA YASUHIRO (JP); SASAKI YASUSHI (JP); AOKI  
SADAYUKI (JP); NAGAYAMA KAZUO (JP)

Priority (Number,Kind,Date): US 969708 A 19971124; JP 954673 A 19950117; JP 956189 A

19950119; US 583794 B1 19960116  
Applic (Number,Kind,Date): US 969708 A 19971124  
National Class: \* 123399000; 251129110; 073117300; 073118200  
IPC: \* F02D-011/10; F16K-031/04  
Derwent WPI Acc No: \* G 96-335519; G 98-274236  
Language of Document: English

**United States of America (US) - Legal Status**

Number	Type	Date	Code	Text	
US 5868114	P	19950117	US AA	PRIORITY (PATENT)	
				JP 954673 A 19950117	
US 5868114	P	19950119	US AA	PRIORITY (PATENT)	
				JP 956189 A 19950119	
US 5868114	P	19960116	US AA	PRIORITY	
				US 583794 B1 19960116	
US 5868114	P	19971124	US AE	APPLICATION DATA (PATENT)	(APPL. DATA (PATENT))
				US 969708 A 19971124	
US 5868114	P	19990209	US A	PATENT	

INPADOC/Family and Legal Status

© 2001 European Patent Office. All rights reserved.

Dialog® File Number 345 Accession Number 13089546